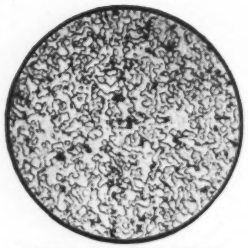
The DENTAL DIGEST

OCTOBER, 1934
Vol. 40 No. 10

A Coarser-Grained Steel Would Be Cheaper, and Easier to Machine— BUT . . *It Could Not Produce the Super-Sharp, Edge-Holding Blades of New Cutwells*

THE special-alloy steel of which New Cutwells are made is electro-wrought and annealed, making it exceptionally dense, hard, and uniform in its grain structure.

Although New Cutwell steel is more difficult to machine and requires costly fine-bladed cutting tools, these cutters are replaced at the first sign of wear to maintain unvarying accuracy at every stage of manufacture. In contrast, cheap burs must be made of softer, coarser-grained steel, not merely for the saving in the price of the steel itself, but to reduce production costs by speeding up machining processes and prolonging the life of the cutters.



ORDINARY BUR STEEL

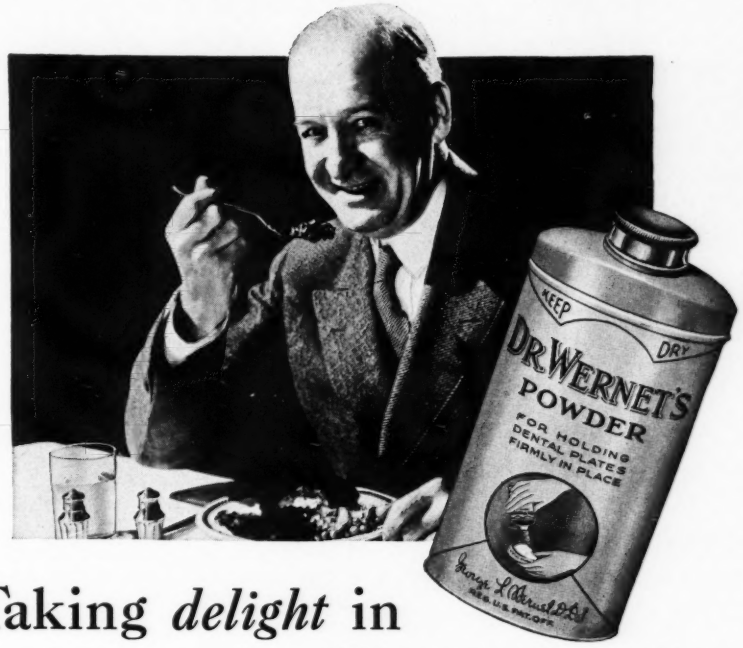
NEW CUTWELL STEEL

Both magnified 500 diameters

The greater density of New Cutwell steel enables it to take a more exact and uniform temper, which is vital to the strength of both blades and necks. Burs with brittle necks, or blades that wear or break down quickly, represent not only an operating handicap but an actual loss to the dentist. By handling only small lots of identical burs at a time, under accurate temperature control, skilled New Cutwell operators are able to give exactly the right temper to each type and size.

● *Quality of steel is one of the factors that make New Cutwell burs more costly to produce, but more economical to use. In fact, at present low prices New Cutwells cost so little more than ordinary burs that they are the most economical burs you can buy.*

THE RANSOM & RANDOLPH CO. . . TOLEDO, OHIO



Taking *delight* in a real Surprise!

HE HAS made a discovery. The difficulties of learning to eat with his new artificial teeth are not nearly so trying as he expected. No wonder he is beaming. And he thinks gratefully of his dentist, who had prescribed DR. WERNET'S Powder.

It forms an elastic, adhesive, and protective cushion between the denture and the tissues. It holds the denture, *mechanically,* more firmly in place, and soothes and protects tissues that are tender. By promoting comfort and greater assurance, it makes it possible for the denture to be worn more regularly, thus hastening its mastery by the patient.

Send for YOUR supply—FREE!

Simply mail the lower portion of this page with your card or letterhead to WERNET DENTAL MFG. CO., 882 Third Ave., Brooklyn, N.Y.

DR. WERNET'S POWDER

Speeds the Mastery of a New Denture!

Broadening THE SERVICE *of Dentistry*

DENTAL science has made a great contribution to human health and happiness in its progress toward the elimination of tooth decay. Unfortunately, there are many people who are not fully aware of the benefits this progress has brought within their reach.

The dentist, naturally, is best qualified to impress upon the public the importance of this service, but his audience is limited to those who seek his counsel.

The advertising of Squibb Dental Cream and Squibb Tooth Powder, appearing in the leading national lay magazines, reaches an almost unlimited audience. This advertising offers a plan for the care of the teeth and recommends that daily home care should follow the advice of the dentist.

The House of Squibb firmly believes this advertising will go far toward broadening the service of dentistry. We therefore invite your cooperation in this common objective.

Both Squibb Dental Cream and Squibb Tooth Powder contain milk of magnesia as the acid-neutralizing ingredient.

E·R·SQUIBB & SONS, NEW YORK

MANUFACTURING CHEMISTS TO THE MEDICAL AND DENTAL PROFESSIONS SINCE 1858

THE PLAN WE ADVOCATE:

•

1. Go to your dentist and follow his advice. This will include the kind of toothbrush to use, and how to use it; what kind of dentifrice to use, and what kind not to use; and whether you should supplement your own home treatment with the use of dental floss and oral perborate.

2. Check your diet with your physician or dentist—to be sure your system is getting the elements essential to the health and strength of your teeth.

3. Brush your teeth thoroughly, at least twice a day, and be sure you use a dentifrice scientifically prepared to clean teeth effectively, and safely.

The DENTAL DIGEST

VOLUME 42 — *October, 1936* — NUMBER 10

EDWARD J. RYAN, B. S., D. D. S., Editor

ETHEL H. DAVIS, A. B., Assistant Editor

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IMMEDIATE TEMPORARY BRIDGES FOR ANTERIOR TEETH

RALPH L. IRELAND, B.S., D.D.S.
Lincoln, Nebraska

THE extraction of one or more anterior teeth always involves the troublesome problem of immediate replacement. Because of the prominent position occupied by these teeth, their absence causes the patient embarrassment; moreover faulty speech and a distorted facial expression invariably result.

The procedure of making a permanent bridge and of inserting it as soon as the anterior teeth have been removed has proved unsatisfactory in many instances. When time is available for the preparation of the temporary restoration before the extraction of anterior teeth, a partial vulcanite denture can be utilized. Inserted after the teeth are removed, such a denture is worn until the tissues have healed and are ready to receive the permanent bridge. In the case of emergency extractions, however, immediate replacement with this type of restoration is obviously impossible.

Temporary Bridge for Immediate Replacement

To permit the immediate replacement of anterior teeth under all circumstances, it is suggested that a temporary bridge be constructed in which three-quarter crowns made of low-fusing metal are used for the attachments, and pin vulcanite teeth for the replacements.

Advantages

1. The primary advantage of this bridge over the vulcanite partial denture is that it is easily and quickly made.
2. It is less expensive to produce.
3. It can be worn with greater comfort by the patient.
4. It is desirable from the standpoint of esthetics.
5. This type of replacement, unlike the vulcanite denture, affords protection to the abutment teeth during their preparation.

Technique

1. At the first appointment a modeling compound impression is made of the anterior teeth in the arch from which they are to be removed.
2. A model is constructed from this impression which serves as a guide for the selection and arrangement of the teeth to be replaced (Fig. 1).
3. Measurements of these teeth are also taken and the shade noted.
4. The teeth to be used as abutments for the permanent bridge are now selected.
5. Enough of the mesial and distal surfaces are next removed to eliminate all undercuts and to allow for the easy removal of an impression (Fig. 2). A sufficient amount of the enamel on the lingual and incisal surfaces is also ground away to clear the bite.
6. When a copper band has been selected and a wax or compound impression taken of the prepared teeth, the patient is dismissed.
7. In the laboratory a strip of baseplate wax is now adapted around the upper part of the band and sealed (Fig. 3). The wax should extend beyond the band at least one-fourth of an inch to provide for an adequate base on the model.
8. With a sharp wax spatula a small amount of wax is trimmed away from the inside of the wax ring down to the copper band (Fig. 4). This trimming will produce a ledge on the model, the necessity for which will be seen later.
9. A mix of good grade impression plaster is next prepared and vibrated into the impression. When set the wax or modeling compound is softened and the band removed.
10. A piece of number 10 tin foil can be cut and burnished around the crown of the model to form a matrix (Fig. 5).
11. The same copper band used in taking the impression is now placed on the model and trimmed to within 1 or 2 mm. of the incisal surface. It will be noted that the ledge on the model provides a definite seating place for the band.
12. After the band has been trimmed and is in place on the model, the metal can be prevented from flowing into spaces where it is not desired by packing moldine in and around all such areas (Fig. 6).
13. The model with the copper band in place is now grasped with a pair of wire crown pliers, so that one half of the surface of the beaks engages the band and the other half the plaster model. If the fingers and thumb are placed through the openings in the handle of the pliers from the under side, and pressure is exerted outward, a firmer grip may be obtained. By holding the model with the pliers in the left hand the molten metal may be poured into the model directly from the ladle and vibrated into position.
14. When the metal has hardened for approximately two minutes, the copper band is cut and removed.
15. The excess metal is then cut away, and the three-quarter crown is contoured with sandpaper discs and rubber abrasive wheels (Fig. 7).
16. At the second appointment with the patient the three-quarter crowns are placed on the teeth and tested for contact and high spots. If the contact is shy or a margin faulty, the crown is removed and replaced on the model. More metal can then be added with a warm beaver tail burnisher, and the whole repolished. High spots can be ground away with rubber abrasive wheels.
17. The tooth or teeth to be removed may now be extracted.
18. The three-quarter crowns can then be placed on the teeth, and a wax bite taken.
19. If the three-quarter crowns are removed from the bite, they may be replaced, and impressions may then be taken of the upper and lower anterior teeth.
20. Plaster models may now be made from these impressions and

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Fig. 1—Model for selection and arrangement of teeth.

Fig. 2—Preparation of mesial and distal surfaces with safe-side disc.

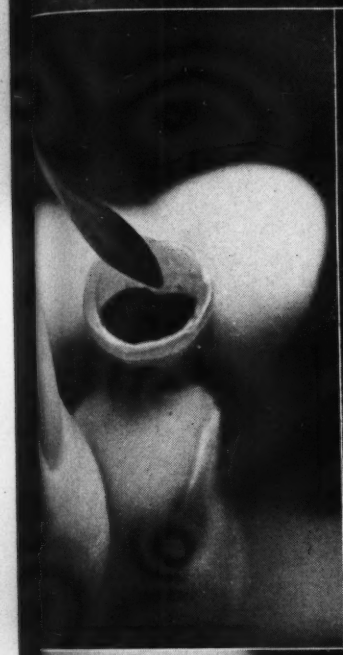
Fig. 3—Baseplate wax adapted around band.

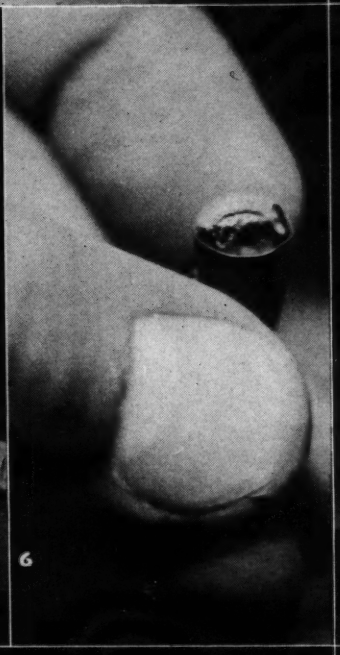
Fig. 4—Trimming wax ring with spatula.

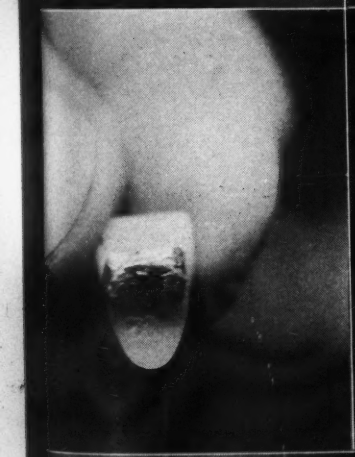
Fig. 5—Tin foil burnished around crown of model to form matrix.

Fig. 6—Packing of moldine to prevent excessive flow of metal.

Fig. 7—Finished three-quarter crown on model.







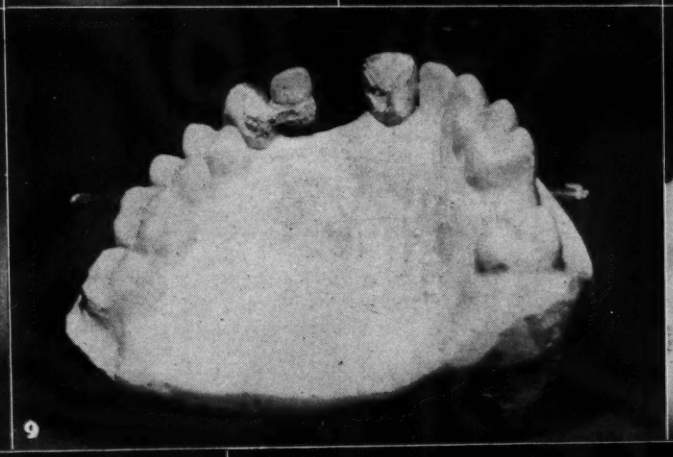


Fig. 8—Metal flowed around pins of vulcanite tooth.

Fig. 9—Attachment of first tooth in a four-tooth bridge.

Fig. 10—Attachment of second tooth in four-tooth bridge, showing metal connecting the two teeth.

Fig. 11—View of approximate distance which ridge laps should extend into sockets.

Fig. 12—Moldine packed over sockets.

Fig. 13—View of finished case, showing concavity of saddle as the result of packing moldine over sockets.

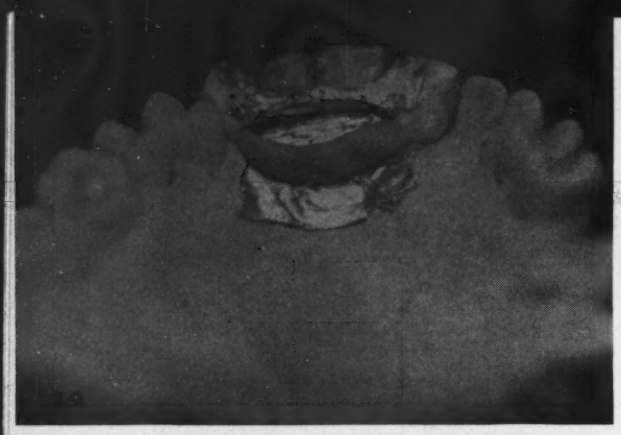


Fig. 14—Tin foil in place with moldine superimposed.

Fig. 17—Buccal view of finished two-tooth bridge.

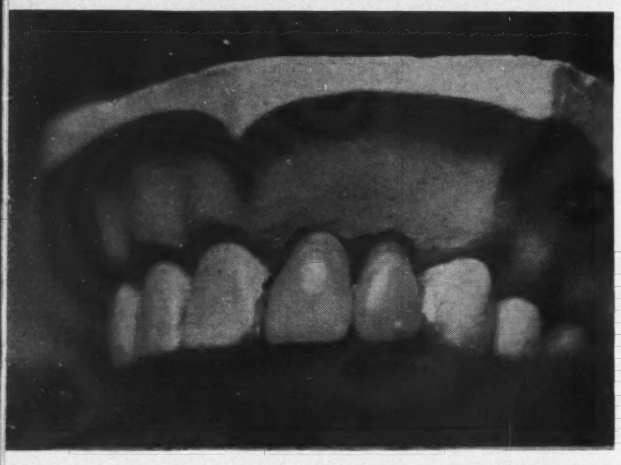


Fig. 15—Buccal view of finished four-tooth bridge.

Fig. 18—Lingual view of finished two-tooth bridge. Note the rest on central incisor.

Fig. 16—Lingual view of finished four-tooth bridge.

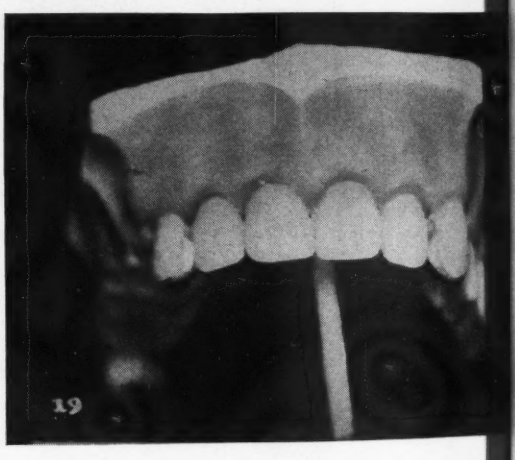


Fig. 19—Buccal view of finished six-tooth bridge.

mounted on a bridge articulator according to the recorded bite.

21. A small amount of the low-fusing metal is flowed around the pins of the vulcanite teeth that have been selected (Fig. 8).

If only one tooth is to be replaced, the tooth is held on the model in the same position as that occupied by the one recently extracted and united to the three-quarter crown with a small quantity of the molten metal.

If two teeth are to be replaced, the vulcanite teeth are attached to the three-quarter crowns one at a time, a small amount of metal being flowed between them (Fig. 9 and 10).

In the case of four replacements the same procedure is followed, the vulcanite teeth being first attached to the three-quarter crowns, after which each tooth is individually positioned and joined.

In mounting the vulcanite teeth on the model the ridge lap should not be extended too far into the socket (Fig. 11). In some cases it may be necessary to remove a portion of the ridge lap to obtain better adaptation and esthetics. The model shown in Fig. 1 will serve as a useful guide in placing the tooth or teeth in the correct position.

22. With the teeth securely in place on the model, moldine is packed over the sockets of the extracted teeth in the following manner: Starting at the labial border of the socket, this material is packed under the ridge lap of the vulcanite teeth and built up to within a few millimeters of the pins. This packing should then taper down until the lingual border is reached, forming a convex surface from labial to lingual (Fig. 12). This procedure prevents the metal saddle of the finished case from impinging upon the soft tissues (Fig. 13).

23. Over the moldine packing a piece of number 10 tin foil is placed. A rim of moldine is then set over the foil, extending from one three-quarter crown to the other. This rim is so situated that the metal saddle is al-

lowed to extend only a short distance beyond the lingual borders of the extracted teeth (Fig. 14).

24. Tilting the model slightly forward, the low-fusing metal is poured into this reservoir and permitted to harden. Care should be taken not to use too much metal.

25. The rim of moldine may then be removed, and the excess metal ground away and polished.

26. The bridge is removed from the model and placed in the patient's mouth to be tested for occlusion.

27. A cement composed of zinc oxide and eugenol may be employed to retain the bridge in the mouth until the tissues have healed. Figs. 15 to 19 show the finished cases.

28. When the permanent bridge is started, the temporary one is removed. If difficulty is encountered in its removal, a small hole may be drilled through the three-quarter crown in the middle of the lingual surface, and an instrument inserted to assist in breaking the zinc oxide and eugenol.

29. The preparation of the abutment teeth for the permanent bridge having been completed, the temporary bridge is replaced and left in the mouth until the permanent bridge is to be inserted.

30. A new dressing of zinc oxide and eugenol may be used to prevent the abutment teeth from becoming sensitive to thermal changes.

Andrews Hall,
University of Nebraska.

DISCLOSING STAINS FOR DENTAL CARIES

ARTHUR A. GILBERT, B.S., D.D.S.
Chicago

TOO many failures of dental restorations, I believe, are due to an incomplete removal of infected dentine. I have tried, therefore, to devise a test that will show positively whether or not there is any caries left in a partly prepared cavity.

Tincture of Iodine

At first I used plain tincture of iodine. This sinks into the decalcified dentine and leaves a stain that makes a sharp demarcation between the sound and the carious tooth structure. A few seconds is allowed for penetration, and then the cavity is rinsed with warm water. The iodine rinses off from the sound dentine, but leaves a brown stain wherever there is porosity, decay, or débris. I have found the iodine stain useful also during the "toilet" of a cavity which has been excavated at a previous sitting. It facilitates the removal of mucous film and food débris that may have penetrated beneath the temporary restoration. The iodine stain is not lasting, however, and needs to be repeated several times during the preparation of an extensive cavity.

Saturated Solution of Silver Nitrate

In larger cavities I have found that a saturated solution of silver nitrate makes a more nearly ideal stain for detecting caries.

1. The débris and discolored dentine are removed with a spoon excavator and a large round bur.

2. After the cavity has been rinsed and dried, the cavity is moistened with the silver nitrate solution on a small pellet of cotton.

3. A few seconds are allowed for penetration, then another pellet of cotton soaked in oil of cloves is applied. This stops the pain from the nitrate, precipitates the silver, and overcomes the metallic taste.

4. After the area has been rinsed, the residual caries is found to be stained a light yellow, which will turn black on exposure to direct sunlight. I prefer to pack the cavity with gutta-percha, including a small piece of cotton damp with eugenol or oil of cloves. The cotton facilitates removal of the temporary restoration and the eugenol eliminates pain and lessens the chances of infection in case of an unexpected pulp exposure. The gutta-percha pack presses away the gum tissue and makes possible the proper preparation of the gingival margin.

5. When the temporary restoration is removed at the next sitting, any remaining caries will have turned a decided black; whereas the sound dentine disclosed when the black is removed, appears as a contrasting white. The operator can then be certain when his "job" is done.

6. Sometimes a film of metallic silver becomes deposited on sound tooth structure. It appears as a light gray, easily distinguished from the deep black of stained caries. If this shows through the buccal plate of enamel, it may be shaved off; otherwise a subsequent operator might mistake it for an indication of a leaking filling.

Test Filling

After three years' use of the silver nitrate stain, I find that it is often safer to leave a layer of discolored dentine over the pulp chamber of a deep cavity than to remove it all and risk exposure of the pulp. In these cases I recommend a test filling of zinc cement, which I leave in the cavity for a month or two before replacing it with metal. Pulpitis under a test filling and even subsequent extraction does not reflect unfavorably on the reputation of the operator as a careful and conservative dentist. I have been able to retain vital pulps by this procedure in many teeth which I am sure would otherwise have been lost.

1607 Howard Street.

CONSTRUCTION OF AN ACCURATE COUNTER DIE

DONALD C. PADELFORD, D.D.S.
Rochester, New York

ONE of the common errors in jacket crown construction is the faulty counter die into which the amalgam die must fit. The operator too often finds the jacket crown protruding too much toward the labial or lingual, or discovers poor contacts; either malalinement or improper fitting results in failure with consequent ill feeling toward the laboratory technician who made the crown. The following technique can be used whether the dentist does his own ceramic work or has the laboratory do it for him.

Technique

Counter Die—1. Into one of the copper band impressions a cement die is made while the patient is in the chair. A little practice will enable the operator to produce this rather rapidly. I have found that Kryptex cement is best for this purpose.

2. A soft mix is made and placed in the impression.

3. A stiff mass of putty-like consistency is mixed and molded between the fingers into the shape of a root and stuck to the softer cement in the band. A little cocoa butter on the fingers will facilitate the shaping of this cement and prevent its sticking to them.

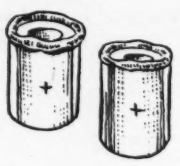
4. After this cement die is allowed to set for five minutes, the impression is softened in hot water, and the cement die removed and trimmed with sandpaper discs. The trimming should bring the root-end flush with the margin of the shoulder.

The Tin Matrix—1. Heavy tin foil is used for forming the matrix over this die. It is shaped and burnished quickly into place in exactly the same manner as the platinum matrix will be over the amalgam die.

2. A diamond-shaped piece of tin is cut about three-fourths inch long by one-half inch wide. This is placed on the cement die, so that the long ends may be brought together on the lingual surface to form a tinner's joint by folding up on themselves.

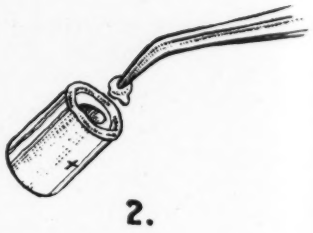
3. The incisal ends are trimmed off and the entire matrix is quickly burnished on the die.

4. The apron or the part extending over the shoulder is cut away flush with the shoulder.



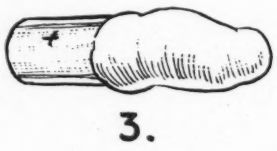
1.

Two marked band impressions.



2.

Filling stump end impression with soft model cement.



3.

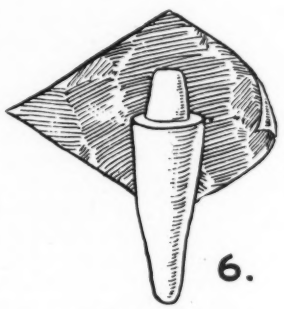
Mass of stiff mix added to stump end of impression.

4.

Root-end formed from mass shown in Fig. 3.

5.

Die removed and cleaned.



6.

Tin foil matrix.

7.

Wrapped tin foil matrix.

8.

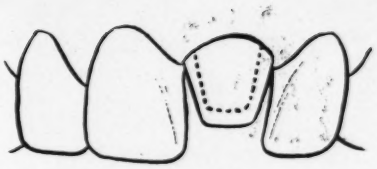
Cut off apron with sharp knife at shoulder junction.

9.

Reinforce with zinc cement covering entire matrix.

10.

Finished cement counter die. Note angle of approximal sides to allow accurate impression of adjacent contacts.



11.

Counter die in position, ready for plaster impression.

5. Reinforce.

6. A thin layer of any zinc cement is placed over it for reinforcement; one should be careful not to have too much cement on the approximal sides. This is important because perfect impressions of the adjacent teeth in plaster are necessary in order to form perfect contacts on the jacket crown.

7. This counter die is placed in position on the prepared tooth and the plaster impression is taken.

Conclusion

The use of this method will remove a great deal of the hazard of malalinement and poor formation, because the technician is enabled to know more accurately where to place the amalgam die in the plaster impression.

906 Medical Arts Building.

ABOUT OUR CONTRIBUTORS

Ralph Leonard Ireland received his D.D.S. from the University of Nebraska in 1929. Doctor Ireland has previously contributed to the dental literature. He is a member of the A.D.A., the Cornhusker Study Club, American Society for the Promotion of Dentistry for Children, and is a First Lieutenant in the Dental Reserve. Doctor Ireland has recently joined the staff of the University of Nebraska to teach pediodontia.

Donald C. Padelford received his D.D.S. in 1921 from the University of Buffalo. Doctor Padelford has previously written on the subject of ceramics. He is a member of the American Dental Association; Rochester Dental Study Club; Rochester Dental Society of County of Monroe, Seventh District Dental Society of New York State. Doctor Padelford has been the Ceramics Group leader of the Rochester Study Club for six years. He practices general dentistry.

Irving A. Ellman, D.D.S. was graduated from the New York University Dental School in June, 1936. This is his first contribution in a dental magazine. Doctor Ellman has a general practice.

Joseph James Tolan, D.D.S. concludes his article, The First Hundred Years . . . in this issue. The previous installments appeared in the August and September issues where his professional biography was given.

ANNOUNCEMENT OF BOOKS RECEIVED

ORAL HYGIENE AND THE TREATMENT OF PARODONTAL DISEASES (Illustrated), By Russell W. Bunting, D.D.Sc., Philadelphia, Lea & Febiger, 1936.

YOUR BREATH AND YOUR HEALTH (Illustrated), By Louis M. Pearlman, M.D., New York, Academy Publishing Company, May, 1936.

OPERATIVE AND INTERPRETIVE RADIODONTIA (Illustrated), By Walter S. Thompson, D.D.S., Philadelphia, Lea & Febiger, 1936.

A TEXTBOOK OF DENTAL PHARMACOLOGY, MATERIA DENTICA AND PHARMACO-THERAPEUTICS, By William H. O. McGehee, M.D., D.D.S., Philadelphia, P. Blakiston's Son & Co., Inc., 1936.

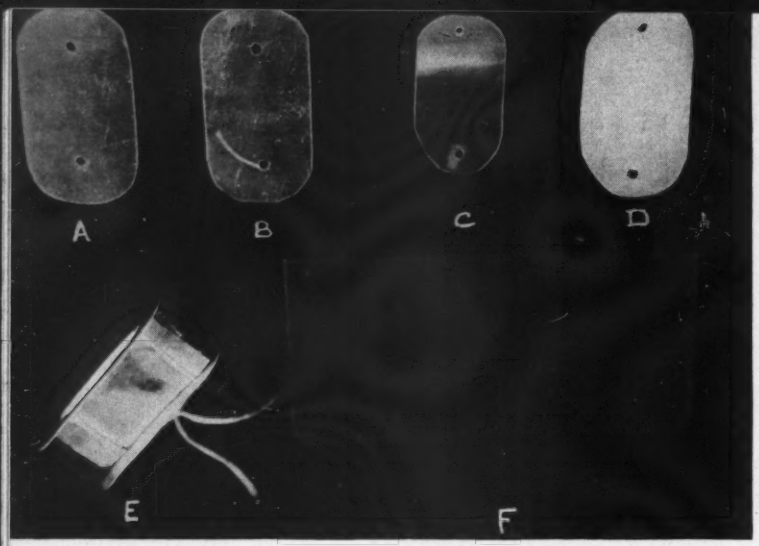


Fig. 1—A and B, Aluminum or lead plates; C and D, curved plates for use in anterior part of mouth; E, metal plates united with dental floss; lead foil, and part of wax in position; F, wax sheet.

Fig. 4—In taking the impression, pressure is applied upon b plate with index finger of the left hand; at the same time the d floss is pulled buccally, thus compressing the lingual plate.

THE WAX BITE

I. A. ELLMAN, D.D.S.
Brooklyn, New York

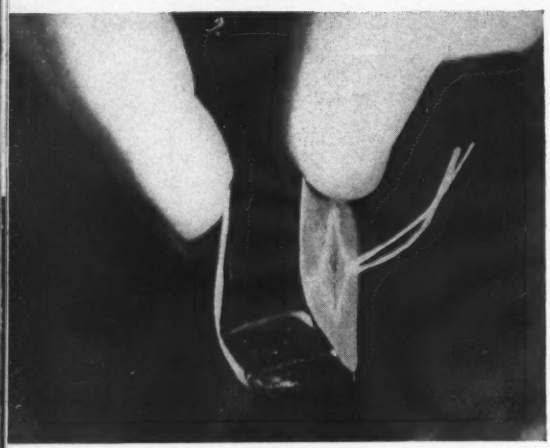


Fig. 2—The completed wax block containing from top to bottom; one-fourth sheet of wax, tin foil, dental floss.

Fig. 3—Method of inserting block between teeth.

AN ACCURATE wax bite is a necessity for good indirect inlays, porcelain jackets, and small bridges. In the following method of taking a wax bite, certain difficulties present in the customary methods are overcome.

ADVANTAGES

1. Compression of the wax on the lingual is obtained without the cooperation of the patient.
2. The technique requires less time.
3. The teeth seem to be guided into a correct centric by the buccal and lingual metal plates.
4. The resulting impression and models are more accurate and neater.

TECHNIQUE

The technique makes use of a buccal and lingual plate of metal (relief metal or thin aluminum) which are united by a piece of dental floss passed through two holes in each metal plate (Fig. 1, E). With the two metal plates supporting the wax, compression on the lingual can be obtained by pulling the dental floss buccally. Compression of the buccal wax is obtained by pressing the buccal plate.

1. Two metal plates, size 1¼ inches by three-fourths inch (Fig. 1, A and B), are laced together with dental floss, leaving three-fourths inch between the plates.
2. One fourth of a sheet of pink wax is softened and rolled along its long side.
3. A piece of lead foil, 1¼ inches by three-fourths inch is laid on one side of the wax.
4. The wax with the foil is placed between the plates with the foil side touching the dental floss (Fig. 1, E).
5. A second piece of pink wax (one-fourth sheet) is rolled and placed between the metal plates on the opposite side of the dental floss (Fig. 2).
6. After the wax is reheated, the block is placed between the teeth with the dental floss extension on the buccal side (Fig. 3).
7. The patient is instructed to bite in centric.
8. With the index finger of the left hand, pressure is applied to the buccal plate; at the same time the dental floss is drawn tight with the right hand. This compresses the buccal and lingual wax (Fig. 4).
9. The wax is chilled and removed.
10. Models can now be poured. Separation of the model is aided by the two metal plates.

In Fig. 1 two other plates of metal (C and D) are shown for use in the anterior part of the mouth. The smaller plate is for the lingual and the larger plate for the buccal. They are both curved to conform with the dental arch in the anterior region.

The metal plates may be sterilized after they have been used once, and used again.

701 Brighton Beach Avenue.

The Editor's Page

A COMMON annoyance in dental practice is the broken appointment. It is customary in some practices to make a charge for the time reserved for such appointments. The collection of these charges has often been a source of misunderstanding between the dentist and the patient. To prevent complications of this kind, dentists have frequently either resorted to the subterfuge of submerging the charges in a total, unitemized bill for services; or failed to charge the patient for time lost. The first practice is ethically reprehensible, because the patient is paying an unidentified and undisclosed item; the second practice is economically unsound. Patients should pay for broken appointments and know that they are paying for them.

The acceptance of treatment by the patient represents a contractual relationship; the dentist is bound to render service and the patient is bound to pay a reasonable and just fee. Unless, however, there is a definite and specific statement by the dentist to the patient regarding charges for broken appointments, it is unlikely that a court would sustain a dentist who sued and attempted to recover for the productive time lost because of a broken appointment. A court would probably take the position that such a practice was outside the experience of the patient and unlike other contractual relations; that unless a definite expression had been made regarding broken appointments the situation would not be regarded as part of the contract.

Dentists may protect themselves by giving patients appointment cards upon which may be printed a general statement: "Unless twenty-four hours' notice is given a charge will be made for canceled or broken appointments." The acceptance of this card by the patient constitutes a contract. If the patient does not fulfill his agreement by appearing for his appointment at the time indicated on the card the dentist has the right to present a bill for the time allowed. Should the patient refuse to pay, the dentist may, if he wishes, sue for breach of contract.

In a recent decision[1] (*Gillies versus Fluck*) by an Australian court a dentist was awarded damages from a patient who failed to keep two appointments which she had made.

[1]Editorial, D. J. Australia, 8:503 (August 1) 1936.

So far as the dentist is concerned, he is entitled to be paid for the loss of productive time resulting from broken appointments. Custom has come to accept this principle generally; now a court has strengthened the practice. What, however, about the patient? He has, in effect, agreed to buy certain time from a dentist. What recourse has the patient if the dentist fails to meet his appointment punctually. The editor of the *Dental Journal of Australia* asks these two questions pointedly: "(1) What redress have patients who suddenly receive a telephone message from the dentist that he cannot see them at the appointed time and thus upsets their arrangements? (2) Can patients claim compensation if they attend at the exact time appointed and are kept waiting anywhere from fifteen minutes to an hour, thus disorganizing their programme for the rest of the morning or afternoon?" We have all been guilty on these two counts: canceling our patients' appointments on short notice and keeping them waiting needlessly. The most charitable explanation would be to say that we manage our time poorly; a more forcible description would be to call ourselves inconsiderate. Our patients have as much right to have their time respected as we have in expecting them to respect our time. The only remedy for *late* appointments is to manage our time so as to be prepared to meet the patient promptly; to develop the reputation of preciseness. To keep the patient waiting is to encourage the patient to come late in the belief that the dentist will not be ready for him. The remedy for *broken* appointments is to charge and to collect.

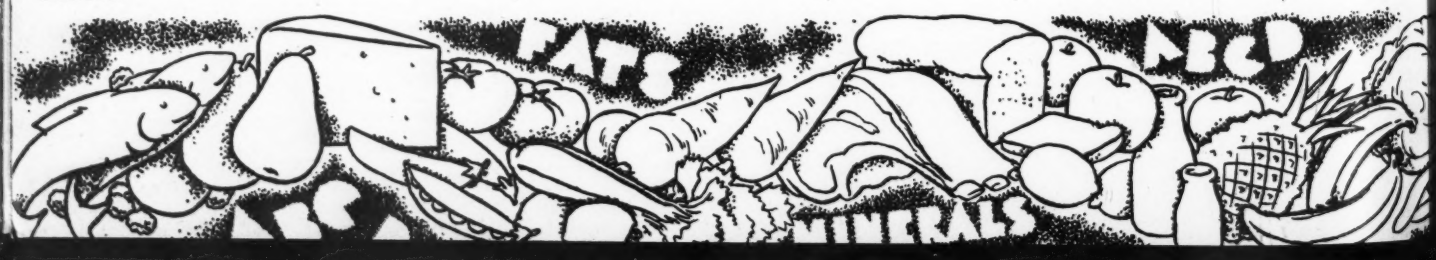
It is no longer the fashion to impress upon the world the extent of our practices by having the reception room full of restless, fidgety patients. The modern compact dental office in high-rent areas has tended to reduce the reception room to a space of limited capacity. This has been a boon to patients; now dentists cannot keep them waiting beyond the limits of the two or three chairs in the room. On-the-minute railroad and airplane schedules, split-second radio programs, and the easily accessible wrist watch have done their part to make us more precise in the management of our time.

EAT TO LIVE

PART II: PROTECTIVE NUTRITION*

CHARACTERISTICS OF THE MODERN DIET	DISEASES AND CONDITIONS AFFECTED BY DIET	DIET IN PREVENTIVE DENTISTRY
1. Highly refined flour products	Diabetes mellitus	Dietary deficiencies lower the body's resistance ease. Oral manifestations of deficiency diseases appear before any other.
2. Sugar	Gout	
3. Refined, canned, and preserved foods	Overweight and underweight	The dentist may properly determine, therefore, w the patient's daily diet seems to be meeting es requirements.
4. Meat, dairy products and eggs	Nephritis	
5. Deficient in minerals, residue, and vitamins	Anemia	The dentist may justifiably point out accepted ards and principles of good nutrition. In the pr of any serious disorder, however, dietary advice be given only in conjunction and under the super of a physician.
6. Influenced by superstitious beliefs; fallacious advertising:	Peptic ulcer	
(a) Certain food combinations are harmful: milk and fish, milk and acid fruit, etc.	Constipation	
(b) Fish is a brain food.	Deficiency diseases	There is considerable agreement that diet is one tive or controlling factor in dental caries. This do mean that excessive consumption of any one foo arrest decay or insure immunity; for that matt diet may succeed in doing this.
(c) Onions cure a cold.	Heart disorders	
(d) Oysters should not be eaten in any month without an "r" in it.	Febrile and Infectious diseases	It is accepted that the calcium-phosphorus meta significantly affects the structure of the teeth.
(e) Prunes relieve constipation.	Diseases of esophagus and stomach; liver; gallbladder	Vitamins, especially A, C, and D have been sho affect the structure of teeth and their susceptibil decay.
(f) Celery is a nerve tonic.	Intestinal and urinary tract diseases	
(g) Raisins supply iron.	Skin disorders	RECOMMENDATION: The consumption o "protective foods," with particular increase of c and phosphorus and Vitamin D for their utilizat
(h) Milk removes onion breath.	Epilepsy; migraine; arthritis	
	Dental caries	

*Prepared by the Editorial Staff of THE DENTAL DIGEST.

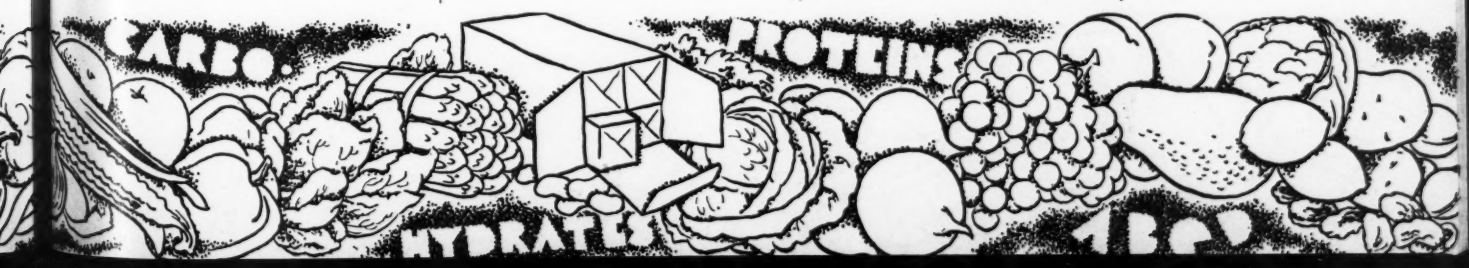


"The newer knowledge of nutrition does not send anyone to market asking for an amino acid, a mineral element, or a vitamin as such or in separate form; but the study of such chemical factors guides us to give proper emphasis to the prominence of those foods which, as the 'natural wholes' to which our species is nutritionally adjusted by its evolutionary history, will furnish us, along with the known essentials, any unknown factors which may also be essential to our nutrition."

"We are 'flying in the face of nature' and shutting our eyes to one of the plainest implications of the evolutionary point of view when we take our nourishment too largely in artificially refined forms from which we have rejected parts of those wholes to which we are attuned by evolution."

—Henry C. Sherman in *Food and Health.*

COMPONENTS OF ALL ADEQUATE DIETS	PROPERTIES, DESCRIPTION AND DEFINITION	FUNCTION	DAILY REQUIREMENTS
ROTEINS AND THEIR AMINO-ACIDS	The word "protein" is derived from the Greek word meaning "preëminence," or "of the first importance." Protein forms the greater part of organic matter. Proteins are found in living matter and are always produced by it. Proteins consist of: carbon hydrogen nitrogen oxygen (generally) sulphur (some) phosphorus (sometimes). Proteins are digestible by certain enzymes; on digestion yield *amino-acids* which are the "building stones of the protein molecule." There are at least eighteen amino-acids or digestion products of proteins. Proteins may be "superior, good, or inferior as food proteins for the formation of body proteins in growth." "The nutritive value of a protein or mixture of proteins depends upon the presence in its molecules of all the essential amino-acids, and upon the extent to which their proportions correspond to those existing in the body proteins into which they are to be transformed. One protein may supplement the deficiency of another."	"In growth, the food proteins which the animal takes are taken apart into simple compounds, the amino-acids, which are absorbed and put together in new order, and in new proportions to form the tissue proteins." Essential to growth, and therefore necessary in pregnancy, recovery from wasting illness, and muscular development in athletic training. Once full growth of tissues has been attained, balance is readily held. Even when growth has ceased, protein is necessary for repair of tissues broken down in life processes.	Amount of protein required per unit of body weight is in proportion to rate of growth and energy needs. Relative amounts of protein required do not change greatly with age. From 10 to 15 per cent of the calories are allowed in the form of protein in diets of both children and adults; or between 3 and 4 ounces per day. Activity and occupation do not greatly influence amount of protein required; but surplus protein is naturally more easily thrown off by an active than by a sedentary worker. Usual protein consumption may be reduced without detriment to health. There is no danger of protein deficiency in a diet otherwise adequate. Nutritive value of proteins from different sources varies greatly. Excessive protein consumption under most conditions is not healthy.

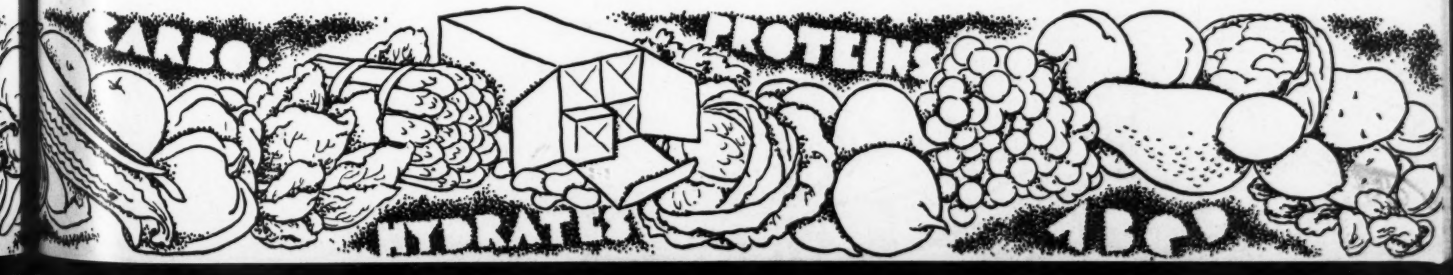


EAT TO LIVE

PART II: PROTECTIVE NUTRITION (Conti

COMPONENTS OF ALL ADEQUATE DIETS	NUMBER AND KINDS	IMPORTANCE AND FUNCTION CHARACTERISTICS	REQUIREMENTS	SPECI SOUR
2. MINERALS "A deficiency of a single one of the indispensable mineral elements produces a very characteristic set of symptoms, and a mode of physiologic failure which can be duplicated in no other way, and which is as specific and characteristic as a vitamin deficiency disease." —*McCollum*	About 20 elements in appreciable quantities in body: Eleven of thirty-seven known indispensable elements in diet are minerals. Numerous additional "traces" of other minerals have been detected, especially in milk. Just how important these are has not yet been determined.	Furnish raw materials for growth and repair of body tissues. "The bones and teeth owe their needed degrees of permanence of form, of rigidity and hardness, to the relatively insoluble mineral matter which they contain." Also important in soft tissues and body fluids. Mineral elements occur as salts (electrolytes, ions) "to which body fluids owe their characteristic properties."	1 Gm. for each kilogram of body weight for average normal adult.	"Protective
	a) Calcium	Stored in bones and teeth from which body can draw in emergency to supply blood with element; but body cannot do this if daily supply is not provided. (Also phosphorus.) Chief element to consider; of all minerals in the body, calcium occurs in largest amount. Effort must be made to obtain calcium as it does not always occur in sufficient quantity in ordinary foods. Dietary apt to be deficient. If small constant supply in blood is abnormally reduced, blood will not coagulate at proper rate; heart muscle will not contract and relax normally. Calcium is necessary for the passage of the nerve impulse across the myoneural junction and through the synapses. Decreases nerve and muscle irritability.	From ½ to ⅔ Gm. per day for normal adult. 1 Gm. for pregnant women, nursing mothers, growing children; more, if possible; rich supply is beneficial to all. Average dietary supply is not enough. Adequate intake may not indicate adequate utilization. Utilization of amount consumed is dependent on adequate supply of Vitamin D. (See September, 1936, Dental Digest.)	Milk Fruits Vegetables Eggs NOTE: 1.2 Gm. of in 1 qt. mi vegetables ondary sou
	b) Phosphorus	Usually considered jointly with calcium. Essential to nuclear constituents of blood and lymph plasma. Storage: *See Calcium*	Dietary often deficient despite wide distribution of inorganic element. Utilization dependent on Vitamin D. At least from 1 Gm. to 1.5 Gm. daily	Milk Leafy veget NOTE: 0.9 1 qt. milk

COMPONENTS OF ALL ADEQUATE DIETS	NUMBER AND KINDS	IMPORTANCE AND FUNCTION CHARACTERISTICS	REQUIREMENTS	SPECIAL SOURCES
ERALS inued)	c) Iron	Essential constituent of hemoglobin (oxygen-carrying pigment of blood) Difficult to absorb. Content in diet does not signify amount absorbed. Assimilation depends on copper. Iron deficiency results in anemia. Not all anemia, however, is due to iron shortage.	Daily for normal adult: 15 Mg.	Red meats Egg yolks Green vegetables Whole wheat Liver once a week would insure abundance. Under special conditions sources should be prescribed by physician.
	d) Copper	Necessary for assimilation of iron.		Some copper in almost all natural foods; trace of copper in *pasteurized* milk (from vats). Liver, spinach, carrots, lean meat, egg yolk.
	e) Iodine	Body content small. Localized in thyroid gland. Deficiency disturbs thyroid and goitre may result.	5 mg. a year is all that is required. Overdosage can do harm.	Use of iodized salt is generally approved. Water (Often deficient) Vegetables
	f) Magnesium	Deficiency mostly in animals.	May be left to chance for abundant consumption.	Ordinary foods
	g) Manganese	Deficiency in human beings unlikely. Shortage affects sex glands in rats.	May be left to chance.	Ordinary foods
	h) "Traces": sulphur	.....	.....	Food proteins
	sodium, potassium, chlorine	.....	.....	Milk



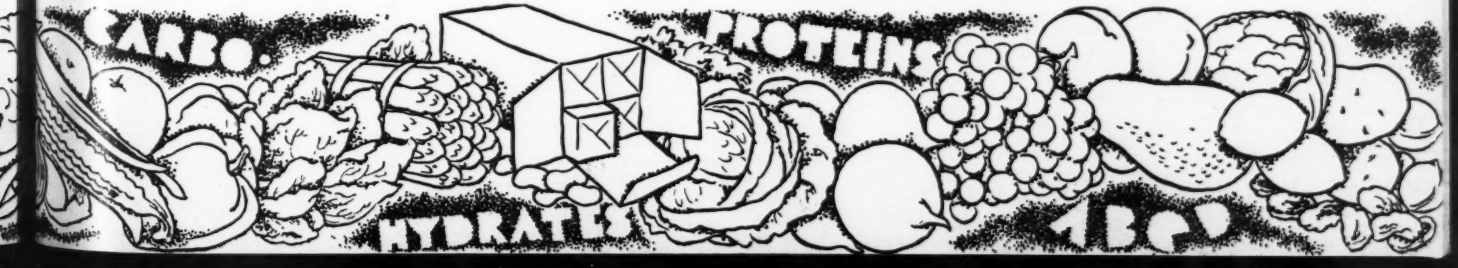
EAT TO LIVE

PART II: PROTECTIVE NUTRITION (Continue

COMPONENTS OF ALL ADEQUATE DIETS	PROPERTIES, CHARACTERISTICS DESCRIPTIONS AND DEFINITIONS	FUNCTION	DAILY REQUIREMENT
3. CARBOHYDRATES:	Compounds of carbon, hydrogen, and oxygen, occurring in animals and plants. Can be chemically split into carbon and water.	May be burned as fuel to yield energy for internal or external work or for heat. May be stored in the body. May be converted into body fat.	
a) Glucose	Glucose is the one sugar constantly present in the blood. Only carbohydrates which can be converted into glucose are of value. Sugar may enter the blood only as glucose.		About one pound of glucose needed for energy and body t ature when engaged in ligh (*McCollum*) Liver and muscles store needs of blood.
b) Starches	Digestion begins in human mouth when mixed with saliva. Converted to malt sugar in alimentary tract (colon). Enters blood only as glucose.		
c) Cane and Beet Sugar	Chief sweetening agent. Contains no structural materials. Contains no mineral elements. Contains no vitamins. Sugar is solely an energy food. Sugar may become a habit. Sugar is an artificial product and tends to crowd out healthful foods.		
d) Milk Sugar (Lactose)	Found only in milk of animals. Encourages growth of bacteria (*Lactobacillus acidophilus*) which cause the souring of milk with formation of lactic acid. Aids intestinal hygiene. Discourages growth of putrefactive bacteria which decompose proteins with formation of foul-smelling substances.		
e) Cellulose	Carbohydrate of vegetable foods. Limited amount aids intestinal hygiene. Water-holding capacity. Passes through alimentary tract unchanged.		

ENTS OF ALL ADEQUATE DIETS	FUNCTIONS	REQUIREMENT	SOURCES
TS	Converted into glycerine and fatty acids on digestion; then unite with alkaline substances in intestinal juice to become soaps which are soluble in water and pass through the intestinal wall where neutral fats are formed again. These pass into the lymph and then into the blood. (*McCollum*). The fatty acid known as linoleic acid is indispensable to normal nutrition.	May be burned as fuel for the same purposes as the carbohydrates. May be stored as body fat.	Plant: olive oil cottonseed oil Animal: butter lard beef and mutton fat (About 15 kinds)
TER	Functions based on usefulness as solvent.	From six to eight glasses daily	Derived from: a) fluids imbibed b) water contained in solid foods c) oxidative processes of metabolism in body.
TAMINS	NOTE: THE SUBJECT OF VITAMINS WAS TREATED SEPARATELY AND IN DETAIL IN PART I OF THIS FEATURE, EAT TO LIVE (DENTAL DIGEST, SEPTEMBER, 1936).		

NIT OF DIETARY EASUREMENT	DEFINITION	UTILIZATION	REQUIREMENTS	SOURCE	ENERGY VALUES OF SOME TYPICAL FOODS IN CALORIES PER LB.
RIES lorie used in the study tabolism is the *large* calontrast with the *small* ard calorie. The small is the amount of heat d to raise 1 Gm. of wagree Centigrade. ge calorie is referred to outline.	Calorie or Calory: "The amount of heat which would raise the temperature of one kilogram of water one degree Centigrade, or about four pounds of water one degree Fahrenheit."	"The economy of other nutritional assets is fundamentally conditioned by the meeting of the body's energy needs." Body burns food as fuel. Fuel furnishes body energy for activivities.	Sufficient for *energy* requirements of body. 4 calories for each gram of fat. From 2400 to 2500 calories for normal adult under average conditions. Needs influenced by: a) activity b) age c) size d) bodily constitution e) environment NOTE: Actual determination dependent on individual reaction to given diet AND AMOUNT OF WORK.	Direct: Sunshine. Indirect: Plants. Supplied by: a) carbohydrates b) proteins c) fats	Bread, 1200 Butter, 3500 Eggs, 600 Milk, 300 Orange juice, 230 Macaroons, 1900 Mince pie, 1300 Potatoes, 380 Sugar, 1800 NOTE: "As foods are 'fattening' in . . . proportion to these energy values, . . . where it is desired to keep down the body weight there is much more to be gained by restricting the fats, sweets, and pastries rather than milk, fruit, and vegetables." (*Sherman*) NOTE: The subject of weight control is out of the scope of this outline.



EAT TO LIVE

PART II: PROTECTIVE NUTRITION (Continu

"PROTECTIVE FOODS" AS "WHOLE" SOURCES OF REQUIREMENTS OF ADEQUATE DIETS (*Sherman*)

I. Grain Products:

corn

wheat—chief food article in western Europe and Americas.

rice—chief food article of half the world's population.

rye

barley

oat kernels

Structure:

1. outer coating or bran contains:
   - fiber
   - mineral elements
   - vitamins
2. embryo or germ: small part of weight of kernel; contains:
   - most of the fat
   - large share of proteins
   - vitamins
3. starchy portion or endosperm contains:
   - carbohydrate
   - protein, fair share
   - mineral elements, poor
   - vitamins, poor

Examples: white flour
white rice
other refined cereals contain variable part of endosperm and no other part of grain.

NOTES: Too large a portion of cereal foods may have a mildly toxic effect because of other deficiencies rather than presence of harmful substances.

Leafy vegetables are most effective in supplementing deficiencies of grain products.

If grain products are used for major part of diet, they should contain the bran and germ.

II. Milk, Cream, Cheese:

Milk: Sole function to serve as food.

Furnishes a form of proteins to balance the grains.

Contains all the known vitamins in well-balanced proportions.

Provides bulk of calcium supply.

One quart per capita is recommended daily.

Lactose of Milk:
(Milk sugar): Excellent carbohydrate. Favors development of *Lactobacillus acidophilus* which aids intestinal hygiene.

Fat of Milk: Already emulsified; readily available to body. Association with fat soluble vitamins (especially Vitamin A) gives milk fat advantage over other common food fats.

Cream: The same as milk but proportions vary according to fat content.

NOTE: Gelatin supplements the proteins of milk. Contains certain amino-acids in which milk proteins are low. (*McCollum*)

III. Eggs:

Efficient source of energy and material for growth.

Resemble meat in protein content and susceptibility to putrefaction in large intestine.

Mineral content and vitamin values better than muscle meat or liver.

Contain richly: Protein (egg white); fat; compounds of phosphorus and iron; Vitamins A and D. Distribution of food values is uneven; more concentrated in yolk.

IV. Meats, Poultry, Fish:

Lean meat comparable to whole grain cereals w
spect to mineral elements.

Chief nutritional value as protein source; also fat

Negligible source of fat-soluble vitamins except i
of certain fish which have high content (cod, ha
salmon).

Show same mineral and vitamin deficiencies as g
Rich in phosphorus and iron; poor in calcium.

Glandular organs richer than muscle meats in
phosphorus, copper, manganese.

Salt water fish and shellfish richest sources of i
Increasing use of iodized salt makes this less signi

V. Fruits and Vegetables:

Important sources of mineral elements and vita

Excellent supplementary source for balanced die

May be used to supply minerals and vitamins w
duction of caloric diet if desired, but restriction
dinary consumption is unnecessary even with inc
amount of fruits and vegetables.

VI. Butter and Other Fats:

Most concentrated form of body fuel.

Liberal use advised only to those whose ener
quirement is high. Too much may be injurious.

Nutritive value depends on extent to which fa
ble vitamins are furnished.

Excellent source of Vitamin A; also Vitamin D.

Supplementary source of energy.

VII. Sugars and Sweets:

Chiefly important as supplementary source of en

Excess should be avoided.

Habit-forming. Crowds out more nutritious food

"Individual differences and idiosyncracies actually play a much smaller part than is popularly supposed. If afflicted with a real idiosyncrasy or food allergy (abnormal sensitivity), which causes acute injury to result from the eating of what is for other people a staple food, one is then the victim of a rare but recognized disease and should seek medical treatment accordingly."

—Henry C. Sherman in *Food and Health.*

"Eat what you want after you have eaten what you should."

—E. V. McCollum in *Food, Nutrition and Health*

"Great variety in the diet does not necessarily assure safety in nutrition."

SUGGESTIONS AND EXAMPLES OF ADEQUATE MENUS FOR NORMAL ADULTS

MAN:

ed glass of orange juice

cereal
cream, ¼ cup
¼ cup

for coffee

milk

pple with cream, sugar

juice
r bread

am, or chops

beans
for potato and string beans
salad (French dressing)
with cream
f milk"

:ABOUT 2420 CALORIES.

"Let at least half of the needed food calories in in the form of the 'protective' foods—milk products, fruits, vegetables, and eggs.

atever breadstuffs and other cereal or grain are eaten, let at least half be in the form of grain,' or 'dark' or 'unskimmed' forms."

BARBORKA:

Breakfast

"Fruit, 1 serving
Cereal (cooked), ⅔ cup
Bacon, 2 slices
Egg, 1
Butter, 2 squares
Cream, 20 per cent, ¼ cup
Sugar, 1 tablespoon

Beverage

Luncheon

Egg (or egg substitute) 1
Potato or substitute, 1 serving
Vegetable, 1 serving
Salad:
Fresh vegetable, 1 serving
Salad dressing with oil, 1 tablespoon
Bread, 1 slice
Butter, 2 squares
Milk, 1 glass
Fruit, 1 serving

Dinner

Meat,	1 serving
Potato,	1 serving
Vegetable,	1 serving
Fruit salad,	1 serving
Bread,	1 slice
Butter,	2 squares
Milk,	1 glass
Dessert,	1 serving"

TOTAL: 70 Gm. protein or 2400 calories.

McCOLLUM:

(Winter Suggestion)

Breakfast

"Grapefruit
Rice griddle cakes with maple syrup
Fresh sausage
Toast
Coffee
Milk

Luncheon

Spanish omelet
Baked potatoes
Pineapple, prunes, stuffed with nuts and cream cheese salad
Rolls
Cocoa

Dinner

Bouillon
Roast duck
Hominy grits—apple sauce
Buttered onions
Lettuce salad with French dressing
Fruit gelatin with whipped cream
White cake
Coffee
Milk

NOTE: "Everyone should take daily throughout life approximately the equivalent of a quart of milk."

Once a day take a liberal serving of cooked greens or herbs including leafy vegetables.

A fruit or vegetable salad should be eaten twice a day.

Calories may vary from 1800 to 4000 daily for adults according to occupation and needs.

a for this study were derived from the following sources:

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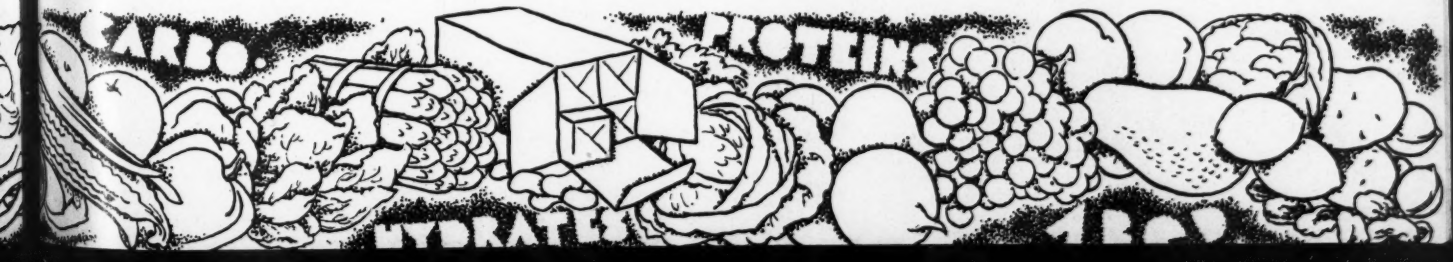
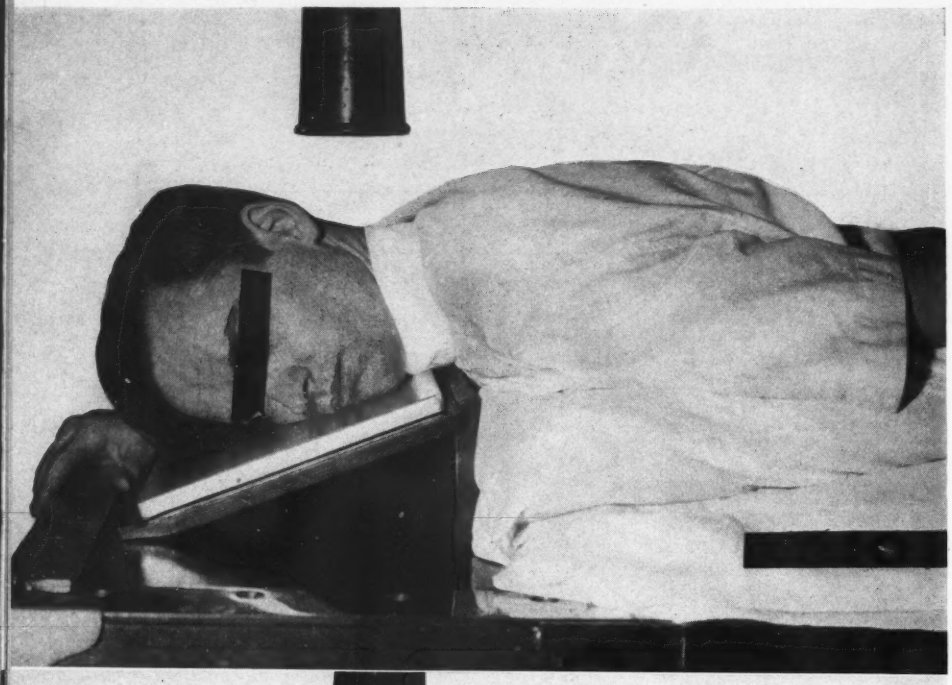
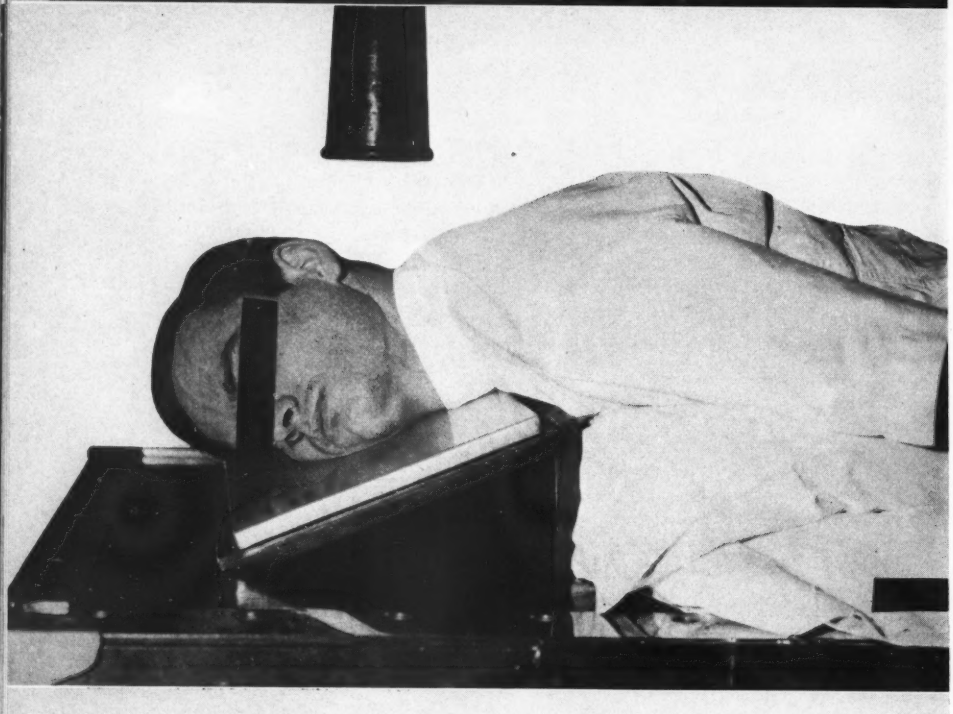


"THE FIRST HUNDRED YEARS. . . ."

JOSEPH J. TOLAN, D.D.S., M.S.
Milwaukee





IN TAKING the roentgenograms shown in the previous two installments[1] of this article, the patient was in the prone position as is seen in the accompanying illustrations. A long dental size cone was used.

Cuspid and Bicuspid Regions—Position 1 is used to show the cuspid and bicuspid regions. A 23 degree angle board (Fig. 3) is used with the base of the angle toward the patient. The head is rotated so that it rests on the zygoma and chin. The neck is flexed until the lower border of the mandible is parallel to the lower edge of the plate. The side to be roentgenographed is placed down. The operator aims straight down with the central ray directed to the angle of the mandible on the opposite side.

Molar Region—Position 2 is used to show the molar region. This position differs from the first position in that the neck is extended further, so that the side of the face rests more on the ramus of the jaw. The lower border of the mandible should not be parallel as in the first position.

AVERAGE EXPOSURE

	Infant	*Child*	*Adolescent*	*Adult*
PKV	45	50	55	60
Milli-ampere seconds	10	25	40	50
Distance (inches)	30	30	30	30

208 East Wisconsin Avenue.

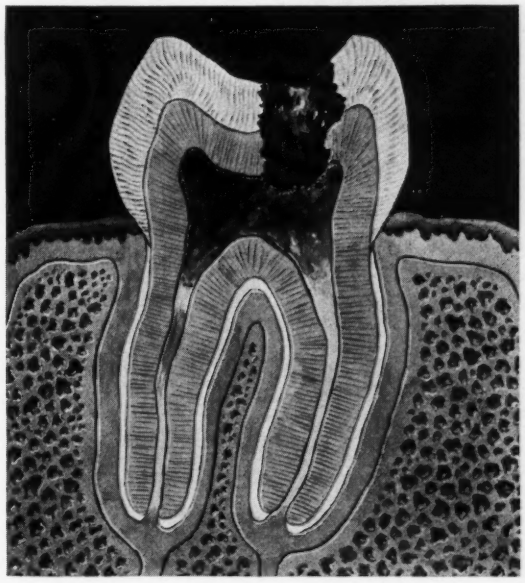
[1]The first and second installments consisting of a series of roentgenograms showing conditions from 2 days to 97 years of age appeared in the August and September issues of this magazine.

Fig. 1—Position 1.

Fig. 2—Position 2.

Fig. 3—30° angle board.

Systemic Invasion from PULP INFECTION



Retarded by

SAL HEPATICA

Systemic disease from chronic infection in vital pulps, occurs quite frequently. When treating this and other foci of infection, systemic invasion should be taken into consideration.

Sal Hepatica helps avert accumulation of undesirable waste in the system by gently but thoroughly cleansing the intestinal tract. It builds resistance to disease by maintaining the alkaline level of tissue plasma, thus combating acidity. It makes a palatable, effervescent drink.

Sal Hepatica approximates the analysis of famous natural eliminant waters in components and ratio. It is similar in action.

Free sample sent upon request.

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CLINICAL COMMENT

REVERSING X-RAY NEGATIVES

HENRY FISCHER, D.D.S.
New York

MANY times it is necessary to print x-ray films on photographic paper for publications, enlargements, and records. If contact prints are made of the negatives, the result is a positive print which is unsatisfactory because the contrasts are reversed. The dentist is accustomed to seeing a bridge as a white area; in a positive, this would appear reversed, as a dark area.

The objective is to obtain a transparent positive film which on contact with sensitized paper will produce a print that will duplicate the original negative film.

PROCEDURE

1. In the x-ray dark room, have the following materials at hand: the negative to be duplicated, an unexposed x-ray film the same size as the negative, a printing frame, a box of matches, a wet cloth, and the ordinary x-ray developing and fixing solutions.

2. Have a dim safe light; place the negative with the sensitive side down on the glass of the printing frame.

3. Open the unexposed film and place the film over and in contact with the negative. Be sure that the sensitive side of the film or that which would be exposed to the x-ray tube faces the negative.

4. Close the printing frame. Have it face upward. Light a match and quickly douse the flare into the wet cloth. The flare makes the contact print. If the film on development is too dark, it means that the exposure was not rapid enough. One fourth of a second is all the exposure time necessary.

5. Place the film in the developing solution and develop visually until the bone appears black and the teeth are indistinct. Wash and fix for twice the time required to clear the film of all milkiness; then wash for at least thirty minutes in an adequate supply of running water and hang to dry. The result is a transparent positive film print or a reversed negative.

6. From this positive print, the contact print and the enlargement are obtained. Place the film sensitive side down on the glass printing frame. Cover with a piece of sensitized photographic paper the same size as the film, and close the printing frame. (The paper used in these illustrations

is Azo, single weight, glossy, contact number 2.)

7. Expose to the light of a 60 Watt electric bulb at a distance of 8 inches for 4 seconds.

8. Develop the paper in the same developing solution as used for the film until the image appears. This should be in forty-five seconds. The exposure time and the distance can be varied until the development takes place in the required time. Wash and fix. Wash again for one-half hour and squeegee face downward onto a ferrotype plate. Allow to dry until it peels. The result is a contact print that is a duplicate of the original negative.

9. For enlargements the positive film is used in an enlarger. If unfamiliar with contact printing and enlarging, the transparent positive film may be sent away to the ordinary film service, and they will print and enlarge in the same manner as they do photographs.

111 East 167th Street.

AMERICAN RED CROSS

THE American Red Cross has helped the victims of 138 disasters in the past year, providing food, shelter, clothing and medical care and assisting those families without resources to rebuild, repair and refurnish their homes. No one knows where the next disaster will strike, but everyone can have a part in helping those who will be injured or made homeless by enrolling as a member in their local Red Cross Chapter during the annual Roll Call, held from Armistice Day to Thanksgiving.

W A N T E D—Five million Americans to enroll in the Red Cross during the annual Roll Call — November 11 to 26. Membership dues $1 up at your local Red Cross Chapter, JOIN!

* * * * *

Red Cross public health nurses made more than a million visits to persons ill in their homes last year and taught 50,000 women and girls how to give intelligent bedside care by class instruction in Home Hygiene and Care of the Sick. Public health nursing service, disaster relief, first aid and life saving, assistance to veterans and all other Red Cross activities are maintained by the membership dues received from the millions of Americans who join each year at the annual Roll Call. Join your local

(*Please use coupon on page* 370)

Red Cross Chapter from November 11 to 26.

* * * * *

More than 80,000 persons were taught life saving and artificial respiration by the Red Cross last year. Your annual Red Cross membership dues and those of four million other Americans have made this program of water safety possible, as well as providing funds for all other Red Cross activities. Join again this year from November 11 to 26.

* * * * *

Four million Americans can't be wrong! This number, and more, enroll each year in the Red Cross to support its work of disaster relief, public health nursing, health education, first aid and accident prevention programs, carried on by its 12,700 Chapters and Branches in practically every county in the Nation. Why not make the Red Cross your agent for good-neighbor deeds throughout the coming year by joining during the annual Roll Call, from November 11 to 26?

* * * * *

Standing by to answer S.O.S. calls from all parts of the Nation when disaster strikes, the American Red Cross must be ready at all times to send workers and dispatch food, clothing and medical supplies to any stricken or seriously threatened area within an hour's notice. This "Minute Man" service is possible because Red Cross Chapters or Branches have been organized in virtually every county in the United States and their efforts coordinated through a strong national organization. Hundreds of thousands of volunteers and more than 4,000,000 members support this legion of mercy through their work and by their membership dues paid each year during the annual Roll Call. The Red Cross receives no monies from public funds, but depends upon the annual membership dues to support both the work of the local Chapters and of the National Organization.

Everyone who enrolls as a member from November 11 to 26 will have a part in all Red Cross work for the coming year; including disaster relief, public health nursing, instruction in first aid and water life saving, assistance to veterans, Junior Red Cross and other services carried on by the organization.

* * * * *

The American Red Cross is chartered by Congress to relieve the suffering of disaster victims, to assist war disabled veterans and men in active service with our armed forces, to maintain a reserve of nurses ready

for duty in event of war or widespread disaster and to carry on other activities in the interest of the health and safety of our citizens.

The President of the United States also serves as President of the American Red Cross and its books are audited annually by the War Department.

No public funds, however, are appropriated to support the Red Cross, which is entirely dependent upon contributions and the membership dues of more than 4,000,000 citizens who join during the annual Roll Call.

Everyone is invited to share in the work of their Red Cross by enrolling as a member with their local Chapter, from November 11 to 26.

* * * * *

No one can buy a blanket insurance policy for the Nation against the destruction caused annually by disasters, but everyone can join hands through the American Red Cross to meet the emergency needs of all families so affected and to provide assistance for those without resources in repairing or replacing their damaged homes and furnishings. More than 145,000 families were so aided by the Red Cross in the Eastern floods and tornadoes this spring. Join your local Red Cross Chapter during the annual Roll Call, from November 11 to 26.

* * * * *

Nearly 1,000 Highway Emergency First Aid stations have been established by the Red Cross along major routes of travel in the past year to help cut the huge death toll of motor accidents. Red Cross Chapters everywhere are adopting this new program and before the year is out several thousand additional stations will be functioning. Your Roll Call dollars support this and every other Red Cross service, including relief to disaster victims, public health nursing, assistance to veterans and instruction in first aid and water life saving. Join your local Chapter during the annual Roll Call, from November 11 to 26.

* * * * *

TEACHING first aid to key men in all types of industry is becoming a more and more important work of the American Red Cross. Each year employers of labor in increasing numbers appreciate the value of such instruction when emergencies arise and personal records reveal that among those trained in first aid the percentage of accidents is markedly less.

The toll of accidents brings home to everyone the urgent need of facilities for giving prompt help to the injured. Minutes are of vital importance in cases of serious injury and the effectiveness of first aid may depend to a large extent on its being available immediately. In cases of arterial bleeding, asphyxiation or electric shock the most skilled treatment may be useless if delayed. To be obliged to wait for the arrival of a physician or an ambulance in an emergency may mean the difference between life and death.

An excellent by-product of first aid training has been the decrease in the accident frequency records of groups which have received this instruction. As men are taught the danger of in-

fection from untreated wounds and the serious aftermath experienced from accidents generally, it is natural that they will become more accident conscious and thus be more alert to prevent hazards of all kinds.

Not only are first aiders of benefit to their fellow workers and an asset to the firm that employs them, but they take their helpful knowledge home with them and are safety sentinels of their neighborhoods, minute men ready to aid in emergencies.

Each year thousands of lives are saved and untold suffering spared because of prompt and intelligent help given on accident scenes by persons trained by the Red Cross. The first aider cannot and does not attempt to render the services of a physician, but in many instances this laymen's immediate help gives the doctor instead of the undertaker a patient.

These Red Cross safety services are supported by the nation wide annual Roll Call—just as are its disaster, nursing veteran and civilian relief programs. Share in the work of your Red Cross and support it by enrolling as a member, November 11-26.

* * * * *

WHEN disaster strikes a community, exacting a toll of life and injury, the Red Cross is on the job to give immediate relief.

Last year the Red Cross started out to give aid to the victims of another type of disaster—highway disasters—which take an average daily toll of more than 100 lives and cause injury to nearly three times that number. To reduce death and needless suffering from highway accidents the Red Cross initiated a system of Highway Emergency First Aid Stations, now numbering more than 1000, along major routes of traffic to give intelligent help to accident victims before the doctor comes.

By virtue of more than a quarter of a century of experience in teaching first aid and through its 12,700 Chapters and Branches reaching into virtually every country in the Union, the American Red Cross is in a position to carry on this program on a nationwide scale, adding to the present number of highway stations until no important traffic route is without this protection.

These emergency first aid stations are located outside of towns and cities, where medical aid and hospital facilities are at a minimum. Existing highway facilities, such as garages, filling stations, wayside inns and State Police sub-stations are used. At least two persons at each station receive the standard training in first aid, and the station is provided with the necessary

equipment and marked by an appropriate roadside sign.

While stressing the actual assistance of first aid stations and mobile units to victims of highway accidents, Red Cross officials are convinced from their long experience in safety work that the presence of first aid station signs on the highway will have a salutary affect on motorists, causing them to be less reckless. When Mr. Motorist drives by a Red Cross first aid station he knows why it is there, his mind is forced to consider the possibility of accident; after he has passed half a dozen the impression deepens and this consciousness should be reflected in his handling of his car.

All Red Cross work is supported by the membership dues of citizens who share in its activity by enrolling each year between Armistice Day and Thanksgiving — the national Roll Call period. Your help is needed. Join!

* * * * *

APPALLED by the huge toll of human life and painful injuries exacted by accidents in American homes and farms, the Red Cross launched a nationwide campaign last fall to stimulate public interest in the removal of the more common home and farm accident hazards.

A recent statistical report by the National Safety Council shows that approximately one fourth of the fatal accidents occurring in all kinds of gainful employment are charged to agricultural pursuits. The farm work death total in 1935 is estimated at 4,400, compared with only 1,900 in all manufacturing, and 2,500 in construction work.

The character of farm work accidents depends somewhat, of course, on the amount of mechanical equipment used and the kind of farming. A detailed six-year study for Kansas shows that in that state agricultural machinery is the most prominent cause of fatal accidents, accounting for 183 deaths out of a total of 604 occurring in the six-year period.

Almost twice as many persons met accidental death in the supposed security of their own homes during 1935 as were fatally injured in all kinds of gainful employment.

In certain respects the home accident problem is more serious than the traffic accident problem. In the age group over 65, for example, more than twice as many persons are killed in home accidents as in motor vehicle accidents. Under five years of age the relative importance of home accidents is even greater—approximately five

times as many home fatalities as motor vehicle deaths.

Working through its 12,700 Chapters and Branches, and assisted by members of the Junior Red Cross in the schools, a plan of home inspection was developed to assist householders and farmers to discover danger spots in their homes and on their farms.

As a result of this program millions of homes and farms were self-inspected and countless hazards never before given serious consideration were brought forcefully to the attention of families.

This Red Cross program, as well as all others, including disaster relief, instruction in first aid and water life saving, public health nursing, the prodution of garments for needy families, assistance to war-disabled veterans, are all supported by the annual membership dues paid by the millions of Americans who join each year during the Roll Call, held from Armistice Day to Thanksgiving.

THE PUBLISHER'S NOTEBOOK

SINCE the new DENTAL DIGEST was established in January, 1932, the paid circulation has more than doubled; and the doubling has been achieved almost entirely during depression years. Part of the reason for it is that more than nine out of every ten subscribers are in the habit of renewing. Publishers watch their renewal percentages closely; a high "turnover" of subscribers signals the fact that the magazine does not have a very firm grip upon the interest of its readers. A high renewal percentage like THE DIGEST'S (other publishers often marvel at this magazine's record) is evidence of a high degree of reader interest.

But what of the small minority group who do *not* renew their subscriptions? Death and retirement account for a few of the losses. Vigorous disagreement with some of the policies of the magazine account for other non-renewals. Perhaps the most frequently expressed reason for not renewing is something like this: "Your magazine prints too few *pages* of editorial material."

In other words, they dislike the *compression* of information which

You will find another coupon on page 371

is the magazine's outstanding characteristic. DIGEST enthusiasts, on the other hand, stress their liking for this same characteristic. The journal's aim, from the very first, has been to present as much useful, accurate *information* as possible in the fewest possible number of *pages*. In the first issue, January, 1932, Doctor Ryan wrote: "It is our ambition to present the case of technical and scientific dentistry as clearly as possible, as simply as we can, and as accurately as we know how. We wish to be modern in the best sense: terse, quick, factual, scientific. The tendency in modern literature and journalism toward compression and realism and away from incoherent ramblings and sentimentalisms, we hope to carry to dental editing. The crush and bustle of modern living drains our energies and devours our time. The Victorians with their leisure and an economic life in slower tempo could afford the time for slow-moving, bulky literature, but we moderns cannot. We ask for facts unadorned; we demand the practical. We are scientists and pragmatists."

There appears to be no way we can hold subscribers who disagree with this policy, without changing the journal's fundamental character; and if that were done, THE DIGEST would likely lose many of the more than 90 per cent who like the magazine as it is—who prefer columns of text edited to yield the fewest possible number of words—who prefer illustrations, diagrams, charts, when it is possible to present *information* by these devices more quickly and more accurately than can be done in more pages of text. The magazine's aim is to present in the fewest possible number of pages the same *information* that would require many more pages—if the editor's blue pencil did not save the reader's time—if fewer illustrations were employed—if THE DIGEST's big pages (about twice the customary size) did not make possible the presentation of large illustrations in which details may be shown clearly.

—MERWIN B. MASSOL, *Publisher*

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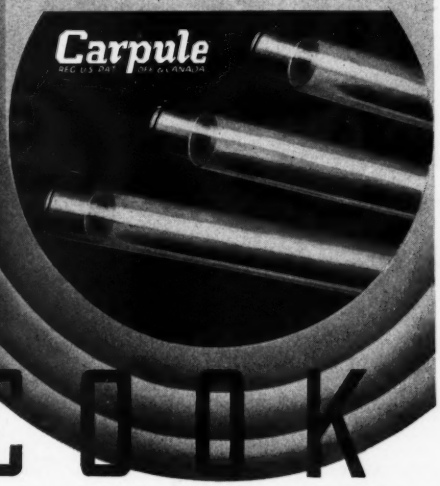
THERE are many ways to promote patient-recommendation, but one that can undoubtedly contribute to a dentist's reputation for skill among his patient's, is the judicious use of local anesthesia.

And, the dentists who realize the utmost from local anesthesia, know that the judicious selection of local anesthetic solution plays an important part in their success.

They are the dentists who want to be certain of the efficiency and safety of the solution . . . the ability and responsibility of its manufacturer. Many of them prefer a Novocain-epinephrin solution or Novocain with Cobefrin in Cook "Carpule" cartridges.

Note: It is the use of a normal saline vehicle that anesthetic solutions (Cook) differ from those available in R. B. Waite cartridges and ampules.



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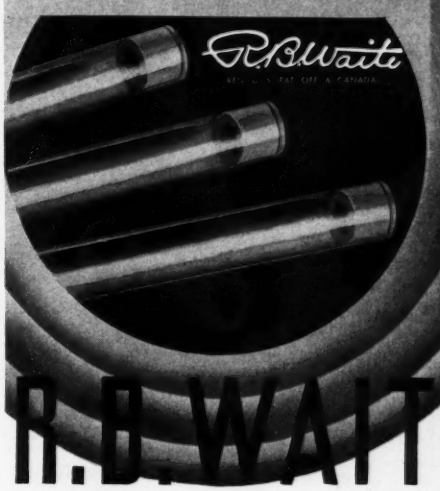

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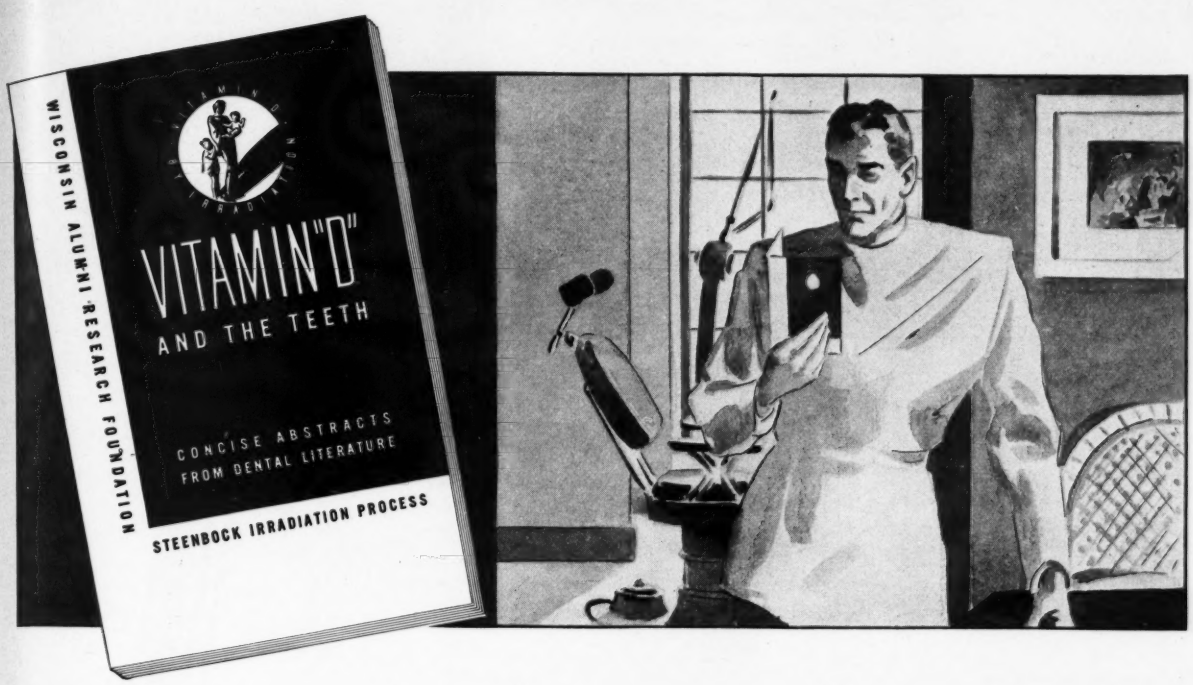
ILLUSTRATIONS: Drawings and photographs should be plainly numbered on the backs according to the sequence in which reference is made to them in the article. The author's name should be written on the back of each illustration, and in case of possible doubt, the word "Top" to designate the top of the illustration. In the case of roentgenograms, the negatives are preferred for reproduction; in the case of photographs, glossy prints about 12 by 8 inches in size. Line drawings should be made in black on white paper that does not blot. Color work must be of a particularly high quality to be acceptable. All illustrations should be clear and distinct and large enough so that details will not be lost if reduction in size is necessary.

EDITING: Authors should not feel that they are being discriminated against or personally criticized when changes are made in the wording or spelling of their manuscripts or if parts are deleted. A minimum of editing is necessary in all cases—if for no other reason than to make grammatical corrections, and sometimes one article will require more revision than another. The reason for this is obvious. Every magazine has its peculiar style in matters of arbitrary spelling, in its general tone, in its form of presentation. The DIGEST favors a compact, terse, simple style, with outlining wherever possible, and many illustrations. Wordy, padded articles, with extraneous and irrelevant matter and florid writing will necessarily undergo considerable editing to make them conform to our style of succinct, *purposeful* writing. It is, however, at all times the aim of the editors to preserve the author's meaning and to help him make that meaning clear; the editing is not done for standardization as such.

ANONYMITY: Anonymous manuscripts and communications will not be read.



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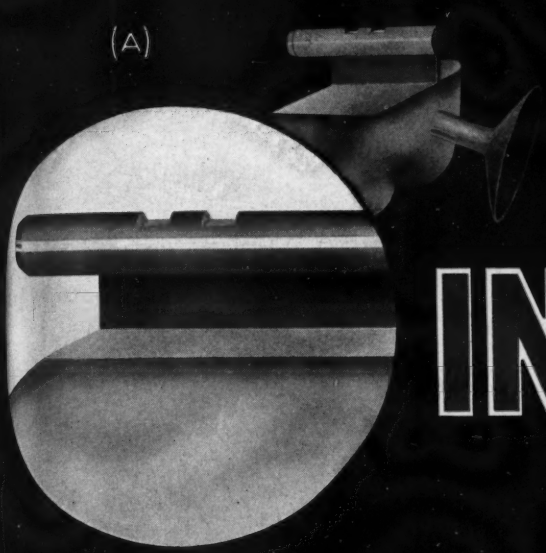

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